## (19) World Intellectual Property Organization International Bureau





## (43) International Publication Date 12 April 2001 (12.04.2001)

PCT

## (10) International Publication Number WO 01/25256 A2

(51) International Patent Classification7:

Salt Lake City, UT 84108 (US).

**C07K** 

Circle of Hope, Salt Lake City, UT 84112 (US). MANOS, Elizabeth [US/US]; Huntsman Cancer Institute, Room

5262, 2000 Circle of Hope, Salt Lake city, UT 84112 (US).

(21) International Application Number: PCT/US00/27868 (22) International Filing Date: 6 October 2000 (06.10.2000)

(74) Agent: GIDDINGS, Barton; Madson & Metcalf, Suite 900, 15 West South Temple, Salt Lake City, UT 84101

**English** 

(US).

(25) Filing Language:

(30) Priority Data: 60/157.913

**English** 

US

(81) Designated States (national): CA, JP, US.

(26) Publication Language:

(84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

(71) Applicant (for all designated States except US): UNIVER-SITY OF UTAH RESEARCH FOUNDATION [US/US]; Technology Transfer Office, Suite 110, 612 Arapeen drive,

Published:

Without international search report and to be republished upon receipt of that report.

(72) Inventors; and

(75) Inventors/Applicants (for US only): JONES, David [US/US]; Huntsman Cancer Institute, Room 5262, 2000 For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

TRDL-1-GAMMA, A NOVEL TUMOR NECROSIS-LIKE LIGAND (54) Title

6 October 1999 (06.10.1999)

109 QKQKKQHSVLHLVPINATSKDDSDV 109 QKQK<u>I-----N</u>DSDV 109 QKQKKQHSVLHLVPINATSKDDSDV

(57) Abstract: The present invention relates to a novel human alternatively spliced Tumor Necrosis-Like Ligand (TRDL) (SEQ ID NO:2). Nucleic acid molecules that encode for the novel TRDL-17 have been identified and purified. The sequence of such a nucleic acid molecule can be found at SEQ ID NO:1. Provided herein are nucleic acid molecules that encode such TRDL molecules. The present invention also provides recombinant vectors comprising nucleic acid molecules that code for TRDL-17. In certain embodiments, these recombinant vectors are plasmids. In certain embodiments, these recombinant vectors are prokaryotic or eukaryotic expression vectors. In certain especially preferred embodiments, the nucleic acid coding for TRDL-17 is operably linked to a heterologous promoter. The present invention further provides host cells comprising a nucleic acid that codes for TRDL-17. TRDL-1 has been shown to stimulate Jurkat cell death. Moreover, TRDL-1 binds to existing members of the TNF receptor family including, FAS and HVEM. Examination of 48 tumor samples revealed high levels of TRDL-1 expression in several tumors including those from the gastrointestinal tract.